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ABSTRACT

The paper examines trends in the assessment of children in the public schools. A brief history notes changes in the role of school personnel relative to the assessment process, and considers economic factors (specialization and accountability) influencing the assessment function. Among the social/political factors influencing the assessment function are backlash of parents whose children had been declared ineligible for special education and the outcomes of the civil rights movement. Federal statutes and regulations as well as case law are summarized for their impact on assessment. Among technological and professional influences cited are opposition to misuse of intelligence tests, the resulting expansion of evaluation approaches, and the application of computers to the assessment process. The final section of the report projects the trends in terms of future impact on four areas: regulation, organization, personnel, and methodology. (CL)

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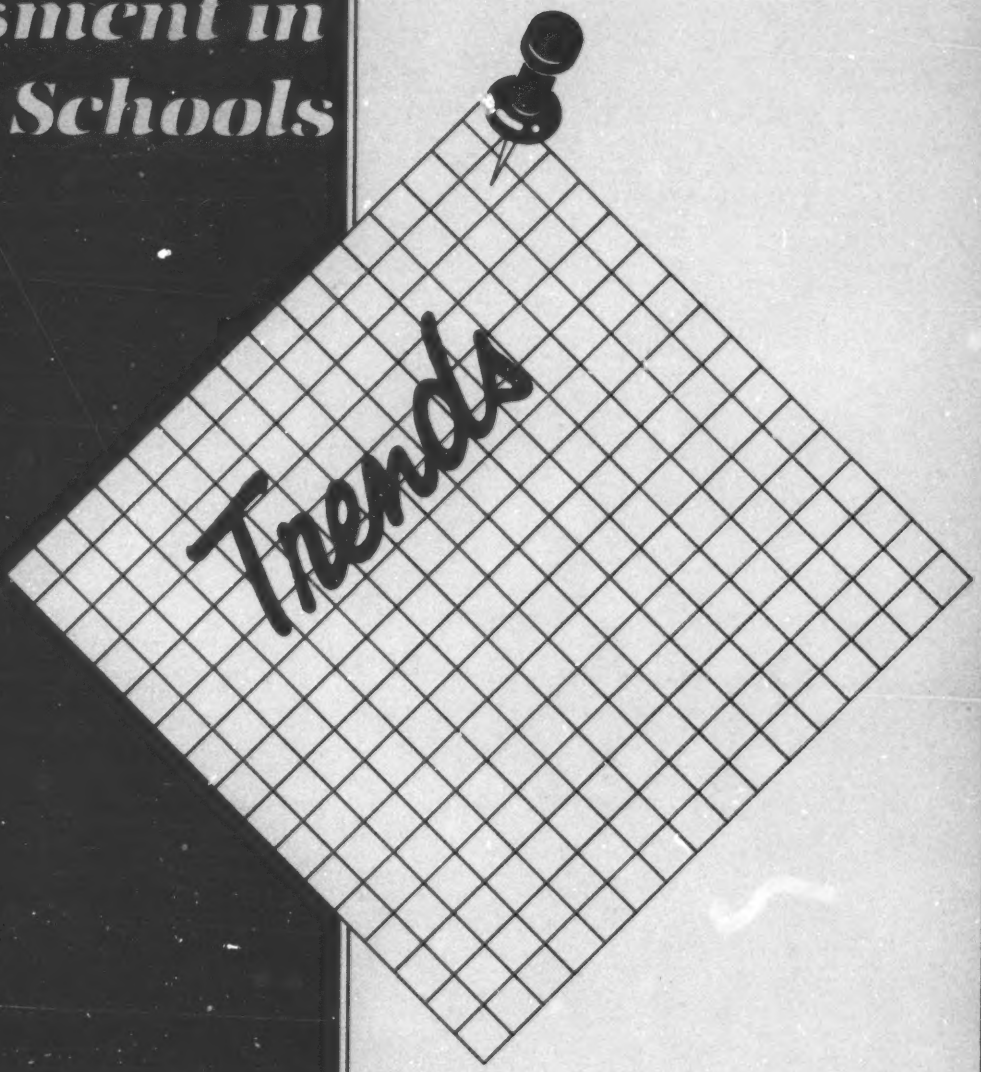

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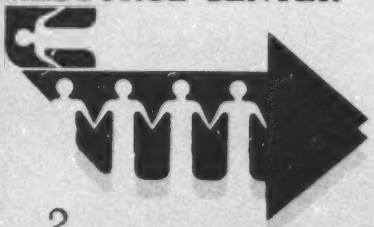

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THE CHANGING NATURE OF ASSESSMENT IN PUBLIC SCHOOLS

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INTRODUCTION

That the nature of assessment in schools is in a state of flux appears obvious from the amount of recent literature devoted to how that change should be directed (Research for Better Schools, Inc., 1979; Ysseldyke & Weinberg, 1981; Lidz, 1981; Mora.., 1978; and Gearheart & Willenberg, 1980, are examples). Most of these writings address themselves to interpretations of how change should come about, or to what the regulatory requirements for assessment are, or to why particular technologies are the best practices to meet the demands being made on schools to provide relevant assessment. This paper will not attempt to retrace this ground; though advances in the technology of assessment are certainly a part of what is affecting the nature of assessment in schools, they are not limited to the field of psychology, per se. Nor is technological advance even the primary factor affecting the change in assessment. Social changes traceable to the civil rights movement have resulted in vast changes in law. Economic changes are severely affecting school finance. These may have a far more significant influence on the place of assessment in schools.

It is the purpose of this paper to examine trends in assessment and to develop from those trends possible futures statements about where assessment in public schools might be in ten years, or so. Economic, social/political, legal and professional factors which seem to be influencing trends in assessment will be reviewed. Where appropriate, examples of assessment approaches will be offered. There is no intent, however, to advocate any particular approach. The extent to which the futures statements included in the final section of the paper turn out to be reasonable predictions is subject to many things. The future of assessment in schools will result from the interplay of trends (both those described here and those overlooked) and the choices made by school boards, professional educators, politicians, the courts and the public.

A Brief History of Assessment in Schools

Assessment in schools was, until the 1970s, almost the sole province of school psychology. Trachtman (1981) noted that the history of psychology in the schools has been closely tied to the development of special education. From early in the century until very recently, the school psychologist's role was that of "gatekeeper" for special education. Who went into special education programs and who did not was a decision made almost entirely by the school psychologist. From the viewpoint of the school administrator, this role is the most important for the school psychologist (Kaplan, Chrin, & Clancy, 1977; Senft & Snider, 1980). Teachers who have interacted with the school psychologist in search of assistance in programming for a specific child have found less satisfaction with the gatekeeper role (Lidz, 1981; Dean, 1981).

The role of the school psychologist in assessment has been a hotly pursued topic among the psychological associations. The National Association of School Psychologists has devoted two entire issues of its journal, School Psychology Review (Volume X, No. 2 and Volume XI, No. 2) to the future of psychology in schools. Division Sixteen (the School Psychology Division) of the American Psychological Association (APA) cosponsored the conferences on which these two volumes were based. The APA Division Sixteen journal, the Journal of School Psychology, has likewise devoted a large amount of space to the topic of the school psychologist's role. In six recent issues of that journal, 40% of the articles concerned role related topics.[1]

The place of assessment in schools, however, is no longer as closely tied to the school psychologist's role as it once was. Changes in law, the growth of other specialties in education, the public's

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[1]The six issues reviewed for this tally were Vol. 18, Nos. 2,3,4 and Vol. 19, Nos. 1,2,3. The total number of articles was 60 and the topics covered can be divided as follows:

Role Related Topics:	
The perceptions of others of the school psychologist's role	4
Model roles for psychologists	5
Preservice and inservice training models (content) for school psychologists	6
Characteristics of psychologist's functions	5
Historical perspectives of school psychology	4
Total	24
Other Topics:	
Technical data of specific tests	6
Tests applied to specific populations	14
Research on decision-making in assessment	5
Research on learning characteristics of specific populations	11
Total	36

negative reaction to "tests," and trends in school finance and law have all combined to make assessment in schools the concern of many others besides the school psychologist. In the section which follows, each of these major factors affecting the assessment function in schools is explored to show how the traditional role of "gatekeeper" is giving way to a yet to be clearly defined assessment team role.

ECONOMIC FACTORS INFLUENCING THE ASSESSMENT FUNCTION

Specialization

Specialization provides economic benefits for those who specialize. With the end of World War II, specialization in human services began expanding rapidly. This increasing interest in people-oriented professions is one reflection of the shift from an industrial-based to a service-based economy which began early in the century and accelerated during the 1950s and 1960s (Ginzberg, 1982). The entry of the Federal Government into a more active role in social programs expanded employment opportunities for those in human service occupations. Many of these specialists found a significant place in existing institutions (hospitals for the mentally ill, training centers for the mentally retarded, etc.). With the movement of the 1960s and 70s to deinstitutionalize the disabled, the market for many of these specialists moved into the community. Special education programs provided an entré to schools for many specialists. Without special education, it is unlikely that this shift of specialists from institutions to schools could have happened any more than the deinstitutionalization of disabled children could have proceeded without some place to educate them.

Specialists brought to schools other ways of looking at their clientele. Speech pathologists, social workers, physical therapists, and others all have a strong interest in seeing that their special skills are made available in educational programs.[2] It may have been inevitable, then, that P.L. 94-142 contained specific references to this growing list of specialties under the "Related Services" provision, first as statute, and later as regulation. Though not explicitly stated, it is logical to assume that when the services of one such professional group may be provided to

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[2]Evidence of the growth of the human service professions and their influence through associations can be seen in the increase in the number and kind of registered associations with an interest in the application of a given profession in schools. Psychology related associations have gone from one in 1892 (the American Psychological Association was founded in that year) to 35 in 1970. Of these, 27 came into existence after World War II. Of the total, 7 have an explicit purpose to promote the application of psychology in schools, 6 of these having been founded since 1950. A similar, though somewhat more organized association picture, is evident for other professions with an interest in schools (see Fist, 1972).

a child, that group should be represented on the assessment team. The fact that those professional roles are codified in statute is not accidental. Tucker (1981) acknowledges that professionals associated with the National Association of School Psychologists were instrumental in influencing the Bureau of Education for the Handicapped (now Special Education Programs) to include particular reference to psychological services in the related services section of the regulations. This lobbying effort was not unique. Efforts by other professional groups insured that a wide variety of activities would be allowed (and paid for) under the new law. All of this is not to deny that a wide variety of services may be needed, valuable, and the result of substantial gains in human service technologies. It is clear, however, that as an economic factor, specialization has influenced who has what to say about the assessment of children in schools.

Accountability

As school budgets have tightened, administrators have become more concerned with the cost-effectiveness of various programs (Levin, 1975). The gatekeeping assessment function can be viewed from two perspectives. Some administrators have seen value in making entry into special programs more difficult by using stricter criteria for eligibility. Paul (1981) noted that the immediate effect of P.L. 94-142 was to require that schools hire more psychologists to conduct more extensive assessments. This was necessary, he said, to insure that those needing special education were brought in and that those not eligible were excluded.

Other administrators have questioned the value of the gatekeeping function in typical referral and assessment models (Wood & Hertlein, 1982). They see it as expensive, as diagnostically intensive, as not contributing to educational program design or delivery, and as the mechanism which signals the school district to spend a lot more money on some children. When access to special education became the right of all handicapped children, the gatekeeping function lost most of its ability to control costs. Program expenses were no longer fixed with entry granted to those "most in need." Under traditional special education models, expensive programs had to be provided to many more children than before. The gatekeeper, to the extent that s/he identifies children for inclusion in special programs, does nothing to reduce costs or contribute to effective programming. With the special education budgets of many school districts more than tripling in recent years, this traditional role has come under scrutiny and has not fared too well.

SOCIAL/POLITICAL FACTORS INFLUENCING THE ASSESSMENT FUNCTION

Backlash

The parents of children referred for special education assessment who were denied entry to special programs have brought a political accountability force to bear on the gatekeeper function and the traditional special education model. The "Childfind" requirements of P.L. 93-380 and P.L. 94-142 have encouraged schools to search for children in need of special assistance in school. In an effort to insure that all children needing special education were found, some schools sought referrals of children who may be handicapped from the public and from within the regular classroom. The over-referral of suspected handicapped may even have been part of the childfind design in hopes of gathering all those who may be eligible. This strategy had its costs, however. One school district received complaints from parents representing over 1,400 students who had been tested, declared ineligible for special education services and returned to the regular classroom without intervention. Wood and Hertlein (1982) offer one approach to referral and assessment which avoids this difficulty. In their school district, the first intervention for any child referred for testing is in the classroom -- only if the problem cannot be resolved at that level through the use of consultants is further assessment pursued. Other answers may be found to inadequate assessment systems which fail to provide any assistance to vast numbers of children and teachers seeking help, but it is evident that such models cannot survive much longer.

Civil Rights Movement

Although the landmark legislation of the civil rights movement was the Civil Rights Act of 1965, the influence of the concepts inherent in that Act have spread to many other pieces of Federal and State legislation. Indeed, they have been woven into the social fabric: "equal opportunity" as a concept has been extended to many areas of activity (e.g., employment, education, access to public facilities, etc.). The civil rights movement has brought a new level of awareness to people of the ill effects of differential treatment of individuals on the basis of irrelevant characteristics (e.g., in the first instance race, then religion, national origin, sex and handicap).

Traditional school psychology approaches to assessment emphasized classification: those who were not and those who were eligible for special services. The latter were further classified into groups based on characteristics presumed to relate to educational need (e.g., "mental retardation," "visual impairment," etc.). Prior to P.L. 94-142, placement was based on this classification. This approach was logically consistent and easily administered -- mentally retarded children went into classes for the mentally retarded, and so on. Both legal examination (see

ImObersteg, 1982, re Hobson v. Hansen) and scientific study (Ysseldyke & Salvia, 1974; Hobbs, 1975) have revealed serious flaws in this approach. Placement based on classification by type of handicap is inadequate for appropriate programming -- the variability in learner characteristics and skill level is often as broad within a classification (e.g., mentally retarded) as across classifications (e.g., mentally retarded and emotionally disturbed). In addition, the practice of grouping children either by handicap or by ability level often produces a self-fulfilling prophecy -- children placed in low performing groups perform at low levels (Ysseldyke, 1979).

The concept of equal opportunity finds its education expression, in part, in the Individualized Education Program (IEP) of P.L. 94-142. Although the Law does specify that certain groups of children are to be the recipients of special education, the IEP is not a classification-based process. Once eligibility has been established, the focus of the IEP is on educationally relevant information; current level of functioning in various curricular areas, adaptive behavior, specific instructional objectives, etc., must be addressed before placement is made.

The judicial and regulatory call for culturally fair or non-biased assessment is another reflection of the equal opportunity concept in education. ImObersteg (1982) outlines the practical effects of caselaw on the assessment of culturally different children: assessment taken as a whole, should be as relevant to the culture of the minority student being examined as are standard assessments relevant to children from the dominant culture. Such a sweeping legal standard presents extreme technical and philosophical problems for assessment personnel. That sociocultural subgroups (e.g., urban middle class versus rural southern Blacks) may vary as much as major ethnic groups (e.g., Hispanic versus Blacks) further compounds the problem of developing non-biased assessment (Mercer, 1979).

Although clear approaches to such assessment have yet to emerge, the shift from the treatment of groups, however classified, to program design for the individual is consistent with an extension of civil rights concepts to the educational arena. It has a substantial impact on the process of assessment, the type of data collected, and the uses to which such data are put.

LEGAL FACTORS INFLUENCING THE ASSESSMENT FUNCTION

Statute and Regulation

Prior to the passage of P.L. 94-142, Section 504 of the Vocational Rehabilitation Act of 1973, and their related state laws, there was little in the way of standards to require assessment beyond that needed to

determine categorical placement. With the passage of those laws, the situation changed. New requirements were added which made assessment and placement functions the responsibility of a group of professionals.

At the time of this writing, Proposed Regulations (Federal Register, August 4, 1982) had been offered which would change some of the provisions of the previous regulations (Federal Register, August 23, 1977). In response to criticism at public hearings, some of these changes were withdrawn. In whatever form the "final regulations" emerge from this process, this will not have been the last time that this sort of regulatory revision occurred -- it will be repeated periodically as long as there is a Federal role in this arena. It is unlikely, however, that certain basic tenets will change. These are at the heart of the Federal Government's interest in education: the protection of Constitutional rights to due process and equal protection.

A reasonable guideline for determining the composition of the evaluation and placement team is likely to remain that if a child may need the services of a specialty, that specialty should be represented on the team. "Education," as defined by the courts in such cases as Pennsylvania Association for Retarded Citizens v. the Commonwealth of Pennsylvania, 334 F. Supp. 1257 (1971), will remain broadly conceived. A narrow definition of "related services" will be insufficient to the legal rights of children to receive education appropriate to their needs. Finally, schools may simply find it more efficient to the conduct of coordinated and coherent programs to continue to involve many specialists in the assessment and planning of a child's program.

Caselaw

ImObersteg (1982) in the companion document to this paper provides an extensive review of Constitutional Law, Statute and caselaw and their implications for assessment. Of particular interest are two cases regarding the use of IQ tests in determining special education placement.

Larry P. v. Riles involved the placement of substantially disproportionate numbers of black children in EMR classes based on an IQ score of 75 or less. Although some other assessments were conducted with these children, the primary indicator of placement in EMR classes was the IQ score. The court found that the use of IQ tests for this purpose constituted denial of equal protection. The school system was enjoined from further use of IQ tests in determining the placement of black children. By contrast, in P.A.S.E. v. Hannon, the court found that the use of IQ tests in conjunction with "other criteria for determining an appropriate educational program for a child" was not a discriminatory practice.

Though further clarification of the issues around the use of IQ tests in education will undoubtedly arise from these cases on appeal, both Larry P. and P.A.S.E. seem consistent on one point. Both indicate the need for other measures, either instead of, or in conjunction with, IQ tests.

PROFESSIONAL AND TECHNOLOGICAL FACTORS INFLUENCING ASSESSMENT

Forced Advances

In his pioneering work in the measurement of intelligence, Binet listed several caveats (from Gould, 1981, page 155):

(1) The scores on intelligence tests are a practical device. They do not measure any one thing. We should not designate what they measure as "intelligence," or any other entity.

(2) The scale of scores is rough. It was not designed to make comparisons among normal children. Its purpose was to identify those to whom added teaching should be directed.

(3) Intelligence tests do not measure "innate limitations," or "hereditary differences." Low scores should not be used to mark children as innately incapable. Emphasis should be on improvement through special training.

Despite these warnings written at the first of this century by the founder of the movement to measure what is educationally relevant, IQ tests were applied for a host of inappropriate purposes. The IQ scores came to be equated with "intelligence." Precision was ascribed to the scale of scores to establish criteria for admission to special classes. Those who entered these classes were presumed deficient, whether by heredity or through some other "organicity." Though some programs may have empahsized the "added teaching" Binet envisioned,[3] many provided a slowed down curriculum from regular classes.

It is sad, though perhaps it was inevitable, that the misuse of intelligence testing became the focus of judicial action. As Newland (1981) has noted, however, the negative reaction against testing has

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[3]Current research in the area of student performance has identified "time in instruction" to be a key variable in student change (Fredricks, Anderson, Baldwin, Grove, Moore & Beaird, 1978). Developing classroom management models (Wilcox, McDonnell, & Bellamy, in preparation) and models of supervision (Adler, 1982) emphasize strategies to increase time in instruction as a primary way to improve educational intervention with special education students.

had positive benefits: school psychologists, in particular, are now using a wider variety of instruments and techniques to examine more aspects of child functioning.

Expanding Measures

Many psychologists, researchers and educators began studying more relevant measures of educational performance than IQ tests long before the Larry P. and P.A.S.E. decisions. Nevertheless, the predominant emphasis in measurement in education until recently was "psychometric." Carver (1974) distinguished psychometric tests (the purpose of which is to measure differences among individuals) from "edumetric tests" (those designed to measure growth or gain in learning within an individual). Most standardized tests were designed to perform a psychometric function, yet they are frequently misused by school districts to measure growth.

Bijou and Baer (1961) took results from learning theory research with animals and applied them to the problems of child development. The application of behavior analysis in education has influenced many professionals. Interest in measurement had largely been limited to the psychologist prior to this time. Now we can find the influence of behavioral analysis and edumetric measurement in a variety of professions. From teachers to educational technologists to physical education specialists to resource consultants, behavioral approaches to measurement are widely used. Time referenced behavioral data (rates, duration and latency measures), charting, task analyzed curriculum sequences, direct instruction methodologies, and criterion referenced tests are widely applied by a number of disciplines.

During the time that this expansion in behavioral technology occurred, more traditional tests and measurements also expanded rapidly. Between the 1972 and 1978 editions of the Mental Measurements Yearbook, the number of references on the construction, use and validity of specific tests grew by 41.3% to 17,481 (Buros, 1978). When the references in the companion volume to the Yearbook (Tests in Print II, Buros, 1974) are included the total number of references jumps to 34,055, an increase of 175% over the 1972 edition (Buros, 1978). In contrast, the Nineteen Forty Mental Measurements Yearbook contained only 1,514 references. Not all of these references of course are educationally oriented, and certainly not special education oriented. They are, however, indicative of incredible growth in the measurement field.

Getting some sense of this growth in measurement lends clearer meaning to Ysseldyke's (1979) observations that decision making in education must involve teams of people because:

(1) Many different types of data are being collected; and

(2) It is highly unlikely that one person has the time or the competence to engage in all phases of data collection.

Computerization

Any discussion of the technological factors influencing assessment would be incomplete without some mention of computers. This is not the place to attempt a review of all the developments in this area, but some trends seem clear. Schools now rely extensively on computers for most of their administrative functions (accounting, payroll, personnel services, class scheduling, etc.). Given the broad application of computer technology to manufacturing design and production, to commerce, to office work, to retailing, and to virtually every other aspect of the economy, it is difficult to imagine that the extensive application of computers in schooling can be far off.

When computers are at last regularly applied to instruction (in basic skills, subject matters, and learning about computer technology, per se) it seems likely that machine-based methodologies will become major assessment tools for schools, much as they have become major diagnostic tools in medicine. Significant work has begun on the development of instructional decision rule analogues based on the continuous collection of student performance data (Haring, Liberty, & White, 1980). These rules, though intended at this point for application by teachers, could serve as the decision analog for machine-based self-correcting instructional systems. The capacity of computers to compile, store, and analyze trial by trial data in many areas of an individual student's performance will likely make obsolete the use of tests which rely on relatively small samples of behavior in order to understand learner characteristics.

The obstacles to such a change in education are not insignificant: teacher training programs will have to make huge adjustments; the capital expenditure for equipment by schools will be large; a change will be required in the proportion of school budgets going into personnel versus non-personnel expenditures (machines will perform previously human tasks to some extent in education as in other fields). To the degree that computers become a part of every other aspect of our existence, education will have to follow suit. Its survival as the institution which prepares people to successfully manage the symbols of the society depends on it.

EXTENDING THE TRENDS -- POSSIBLE FUTURES IN ASSESSMENT

This section attempts to extend the trends presented above and to project their possible impact on assessment in four areas: regulation, organization, personnel and methodology. The time frame for the futures statements is five to ten years.

Any attempt to predict the future, whether based on an analysis of trends or not, is subject to some degree to the hopes and biases of the predictor. No future is inevitable, but rather the result of some "averaging" of events and the preferences of many. The reader, then, may freely reject, modify, or explore alternatives to any of the following.

Regulation

The emphasis in Federal Regulations will shift away from prescription (e.g., what to assess) and concentrate almost wholly on procedural safeguards. The key criteria in most court decisions regarding assessment have been due process and equal protection (Constitutional provisions) and equal opportunity (a basic tenet of the Civil Rights Act of 1964, Title VI). Modifications of and legal challenges to Federal regulatory activity will be judged by these legal standards.

Organization

Assessment in schools will become the responsibility of the regular education program rather than being seen as a function of special education. The special education screening, referral, evaluation and placement process (see for example: Abeson, Bolick & Hass, 1975) is being integrated into regular education from the top down. Childfind and screening prior to referral are now generally considered tasks of regular education. Assessment will follow as a result of pressure from groups representing those denied special education assistance. Schools will adopt organizational schemes which ensure that all children are afforded a variety of interventions within the regular classroom before referral outside is pursued. Eventually, this will mean the complete assimilation of special education by regular education.

Schools will assign the responsibility for coordinating assessment of a given child to one person. Some schools have adopted "case management" approaches to implementing P.L. 94-142. In essence, for purposes of procedural control and continuity, one person is assigned as case manager with responsibility for seeing that the whole of the educational assessment and planning process makes sense. This may be the equivalent of the

emergence of "family medicine" in response to the inability of individual specialists to coordinate medical treatment across other medical disciplines. Who will assume this role is open to conjecture. An understanding of the wide range of assessment methodologies, the ability to communicate to the full range of medical and education specialists, and the sensitivity to deal well with parents and handicapped youth all seem to be prerequisite skills. No specialty training currently provides such a background.

Personnel

Assessment teams involved in IEP development will come to be made up of primarily those people who have directly observed or worked with the child in the instructional environment. Although there may remain some need to understand the etiology of a child's condition, the predominant emphasis of instructional assessment and planning will be functional. Where usually successful interventions are not working, observation of interactions in the instructional setting by trained "neutral observers" will be an invaluable addition to assessment team data. Physicians, psychiatrists and other specialists may continue to do some evaluation and assessment in isolation. However, increasing demands for accountability in instruction, educationally relevant assessment, and cost-effective use of specialists will force assessment back into the instructional environment.

Specialization will continue in all areas of the assessment and education of handicapped children. Existing professions in education will further specialize. In the area of speech, recent divisions of specialists who emphasize language development, speech therapy, and alternative language systems, serve as an example of continuing specialization. Further specialization, in turn, will highlight the need for generalists who help bridge specialties and coordinate services when appropriate.

Methodology

The political and social overtones of assigning children to special education will ensure a place for psychometric measurement in the near term. The need to ensure fairness in assigning extra resources to some children and not to others will continue to require the use of normative measures. Because of the interest of the courts in this area, as well as the trend to assume assessment as a regular education function, measurement for purposes of eligibility will become embedded in the regular process of monitoring learning performance of all children.

There will be an increasing emphasis on the development of edumetric measurement methodology. The ability to guide individual instruction, whether by using computers or not, depends on the ability to compare the current student performance with past student performance. The relatively recent developments of this type of methodology and instructional decision rules based on it lend themselves to computer applications so well that they seem bound to serve as the base for the development of the measurement portions of instructional software packages.

The use of separate psychometric tests will be replaced by the use of psychometric measures within student performance data bases. Within the wider application of computers in instruction, historical records of student performance will become feasible. As the capacity emerges to manage large data bases on student learning performance, the use of separate psychometric tests in academic skill areas will die out. Rather than using separate tests which sample a relatively narrow range of student behaviors, assessment personnel will use new computer-based assessment methodologies to spot deficits and strengths in the wide variety of performance data stored on individual children. This will require a new kind of assessment specialist, skilled in integrating and analyzing huge amounts of data using machine-based assessment models.

Assessment in adaptive behavior and affective domains will see marked improvements. Methodologies to assess and deal with social interaction behaviors, especially low frequency maladaptive behaviors, will see substantial growth (e.g., transactional analysis, ecological assessment systems, etc.). The computer will come to be an integral part of the observational systems, a critical analytic tool, and a part of treatment in these domains.

Overall

Taken together, the above futures point to an organizational refocus by education on improving the quality of assessment and programs. The last ten years seem to have been a necessary phase -- required to force education to address its efforts to serving the needs of our pluralistic and varied population. That phase is not complete, but the emphasis on many fronts now seems clearly to begin focusing more effort on improving quality so that the "access" which has been gained turns out to be of some value.

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